

REMARKS

In response to the Final Office Action dated September 6, 2005, the Applicants hereby request reconsideration of the pending claims in light of the following and the accompanying Request for Continued Examination.

STATUS OF CLAIMS

Claims 1-16 were pending.

Claims 17-20 are newly added.

Accordingly, claims 1-20 are before the Examiner for consideration.

CLAIM REJECTIONS

In Section 2 of the Office Action, claims 1-4, 6, and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 5,734,646 to I et al. ("the '646 patent") in view of U.S. Pat. No. 6,728,217 to Amirijoo et al. ("Amirijoo"). The Applicants respectfully traverse this rejection in light of the amendments to claim 1 set forth above, it being noted that Amirijoo and the '646 patent do not show or suggest all the elements and limitations of claim 1 as amended.

To elaborate, one embodiment of the present invention relates to a method for determining when to grant a mobile station access to a higher data transmission rate across a wireless network channel, such as an uplink or reverse link from the mobile station to a base station. Typically, the mobile station has already been granted access to the reverse link channel, and sends a request for a higher transmission rate, e.g., a request for a data burst rate or the like for the mobile station to send data at a higher rate than its current rate. Upon receipt of the request, the system calculates or otherwise determines at least one estimated performance indicator of the reverse link channel, taking into account the requested higher transmission rate. For example, the system may calculate an estimated loading level and/or estimated RSSI, not only in terms of current channel loading levels but also the additional loading that would occur if the mobile station were to transmit at the higher transmission rate.

Upon being granted access to the requested, higher transmission rate, the mobile station will not necessarily immediately commence transmission at the

higher rate. If conditions on the reverse link channel change for the worse (e.g., a greater than estimated cumulative load), transmissions by the mobile station at the higher rate could negatively affect conditions on the reverse link channel, below a desired quality level. Also, if conditions on the reverse link channel change for the better (e.g., the loading from other mobile stations eases up), the mobile station could be transmitting at a rate lower than the highest possible rate satisfying desired quality levels. Accordingly, in one embodiment of the present invention, discussed in the present specification at Page 4, lines 8-24 and elsewhere, the system continues to track the estimated performance indicator(s) after the mobile station has been granted access to the higher transmission rate, but prior to the mobile station commencing transmissions at the higher rate. If the conditions worsen during this time, based on comparing the tracked indicators to the blocking threshold(s), the mobile station may be denied access to the higher transmission rate. (As should be appreciated, by "tracking" it is meant following the estimated performance indicators such as estimated loading and RSSI, including possible recalculations of the indicators taking into account current/changing network channel conditions.) If channel conditions improve during this time, the mobile station may be granted access to an even higher transmission rate.

Claim 1 has been amended, as set forth above, to specify that the indicator(s) are tracked after the mobile station is granted access to the higher transmission rate but before the mobile station transmits at the higher transmission rate, and that the mobile station may be denied access to the higher transmission rate (again, prior to commencing transmissions) based on a comparison of the indicator as tracked to the blocking threshold.

In regards to the prior art, the '646 patent does not teach tracking a calculated indicator, as the Examiner has indicated. In Amirijoo, a data transfer rate for a mobile station is changed based on tracked indicators. However, this is done on an ongoing, after-the-fact basis. For example, in the system in Amirijoo, a mobile station is granted access at a designated transmission rate. As the mobile station transmits at the designated rate, the system tracks the indicator(s). If the quality level starts to fall off during ongoing transmissions, the system instructs the mobile station to transmit at a lower rate. During transmissions at the lower rate, if the quality level improves sufficiently, the system allows the mobile station

to transmit at a higher rate. As should be appreciated, in Amirijoo decisions regarding rate changes, based on channel conditions, are only made in a reactive manner after a mobile station has been transmitting at a particular rate. There is no teaching or suggestion of granting a mobile station access to a higher transmission rate, tracking the channel indicator(s) after access is granted but prior to the mobile station transmitting at the higher rate, and denying the mobile station access to the higher rate if channel conditions deteriorate (or, more precisely, if the tracked indicators show an undesirable performance level relative to the blocking threshold(s)).

Evidence for the foregoing can be found in a number of places in Amirijoo. For example:

- Amirijoo uses the bit error rate (BER) for measuring quality. "To measure the BER, a channel coding process is used to detect errors in the bit stream." Amirijoo, Col. 4, lines 2-3. As should be appreciated, the bit stream is present only during ongoing transmissions.
- "During the data call, both the MS 20 and the BTS 24 perform signal strength and quality (BER) measurements..." Amirijoo, Col. 4, lines 25-26 (emphasis added).
- "It is important that during the data call, the quality of the data transmitted between the MS 20 and the cellular network 10 over the air interface 12 be maintained." Amirijoo, Col. 3, lines 62-64 (emphasis added).
- "During the 14.4 kbps data call, when the BER measurements 15a come into the BSC 23, comparison logic 21 compares the BER measurements 15a for the serving cell 22a (shown in FIG. 2) with the upper quality threshold 16..." Amirijoo, Col. 6, lines 40-44 (emphasis added).

As the Examiner is aware, to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the references in combination must show or suggest each and every element/limitation of the invention as claimed. Here, the Amirijoo and '464 patents neither show nor suggest all the elements of claim 1 as amended. Accordingly, claim 1 is believed allowable.

Claims 2-4, 6, and 8 depend from claim 1 and are believed allowable as depending from an allowable base claim.

In Sections 3 and 4 of the Office Action, claims 5 and 13-16 were rejected under 35 U.S.C. 103(a) as being unpatentable over the '464 patent and Amirijoo as applied to claim 1, and further in view of additional references as set forth in the Office Action. Since claims 5 and 13-16 depend from claim 1 and are rejected on a similar basis, claims 5 and 13-16 are believed allowable as depending from an allowable base claim in light of the amendments to claim 1.

ALLOWABLE SUBJECT MATTER

In Section 5 of the Office Action, claims 7 and 9-12 were allowed.

NEW CLAIMS

New independent claim 17 relates to similar subject matter as in claim 1. Accordingly, claim 17 is believed allowable over the prior art of record in light of the remarks set forth above. Claims 18-20 depend from claim 17 and are believed allowable as depending from an allowable base claim. Claims 18-20 further recite additional elements not found in the prior art of record, e.g., in claim 20, granting access to an even higher transmission rate based on tracked indicators and prior to a mobile station commencing transmissions at the requested rate.


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CONCLUSION

In view of the foregoing, it is respectfully submitted that pending claims 1-20 are in condition for allowance and action to that effect is earnestly solicited.

A check in the amount of \$790.00 is enclosed for the Request for Continued Examination. The Commissioner is authorized to charge any other fees under 37 CFR 1.17(a) to (d) which may be required to Deposit Account No. 13-0235.

Respectfully submitted,

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